

Operating Instructions AV Control Receiver

Model No. **SA-XR30**

Dear customer

Thank you for purchasing this product.
Before connecting, operating or adjusting this product, please read these instructions completely.
Please keep this manual for future reference.



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IMPORTANT SAFETY INSTRUCTIONS

Read these operating instructions carefully before using the unit. Follow the safety instructions on the unit and the applicable safety instructions listed below. Keep these operating instructions handy for future reference.

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



Listening caution



Selecting fine audio equipment such as the unit you've just purchased is only the start of your musical enjoyment. Now it's time to consider how you can maximize the fun and excitement your equipment offers. This manufacturer and the Electronic Industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion-and, most importantly, without affecting your sensitive hearing.

We recommend that you avoid prolonged exposure to excessive noise.

Sound can be deceiving. Over time your hearing "comfort level" adapts to higher volumes of sound. So what sounds "normal" can actually be loud and harmful to your hearing.

Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

To establish a safe level:

- Start your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

Once you have established a comfortable sound level:

- Set the dial and leave it there.

Taking a minute to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

CAUTION!

DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.

CAUTION!

Do not place anything on top of this unit or block the heat radiation vents in any way. In particular, do not place tape decks or CD/DVD players on this unit as heat radiated from it can damage your software.

Supplied accessories

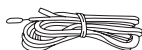


Please check and identify the supplied accessories.

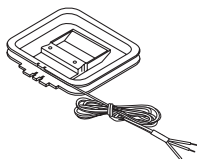
☐ 1 AC power supply cord
(K2CB2CB00006)



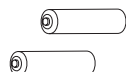
☐ 1 FM indoor antenna
(RSA0006-L)



☐ 1 AM loop antenna
(RSA0037)



☐ 2 Batteries



☐ 1 Remote control
(EUR7722KA0)



Refer to the separate booklet, "Remote Control Operation Guide", for remote control operation details.

Use the numbers indicated in parentheses when asking for replacement parts.

User memo:

DATE OF PURCHASE _____
DEALER NAME _____
DEALER ADDRESS _____
TELEPHONE NUMBER _____

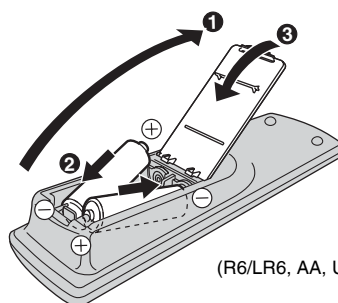
The model number and serial number of this product can be found on either the back or the bottom of the unit. Please note them in the space provided below and keep for future reference.

MODEL NUMBER _____ SA-XR30

SERIAL NUMBER _____

The remote control

Batteries



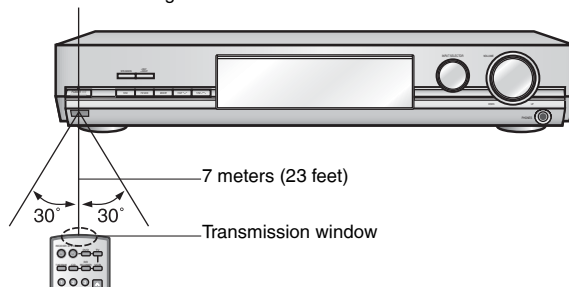
(R6/LR6, AA, UM-3)

- Insert so the poles (+ and -) match those in the remote control.
- Do not use rechargeable type batteries.

Use

Aim at the sensor, avoiding obstacles, at a maximum range of 7 m (23 feet) directly in front of the unit.

Remote control signal sensor



- Keep the transmission window and the unit's sensor free from dust.
- Operation can be affected by strong light sources, such as direct sunlight, and the glass doors on cabinets.

Manufactured under license from Dolby Laboratories.

"Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

"DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.

Step 1

Home Theater connections

DVD player/
TV or monitor

Before connecting

Stereo connection cable



Video connection cable



Coaxial cable



Speaker cable

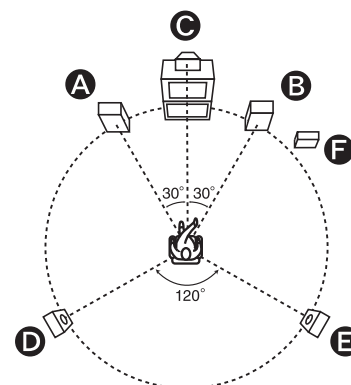


Turn off all components before making any connections.

Note

- Use a digital connection to enjoy Dolby Digital or DTS (⇒ page 10).
- Use an analog connection to enjoy sources that cannot be decoded on this unit and to record a source (⇒ pages 10 and 18).
- Refer to pages 6 through 7 regarding connections to other equipment.

Placement of speakers

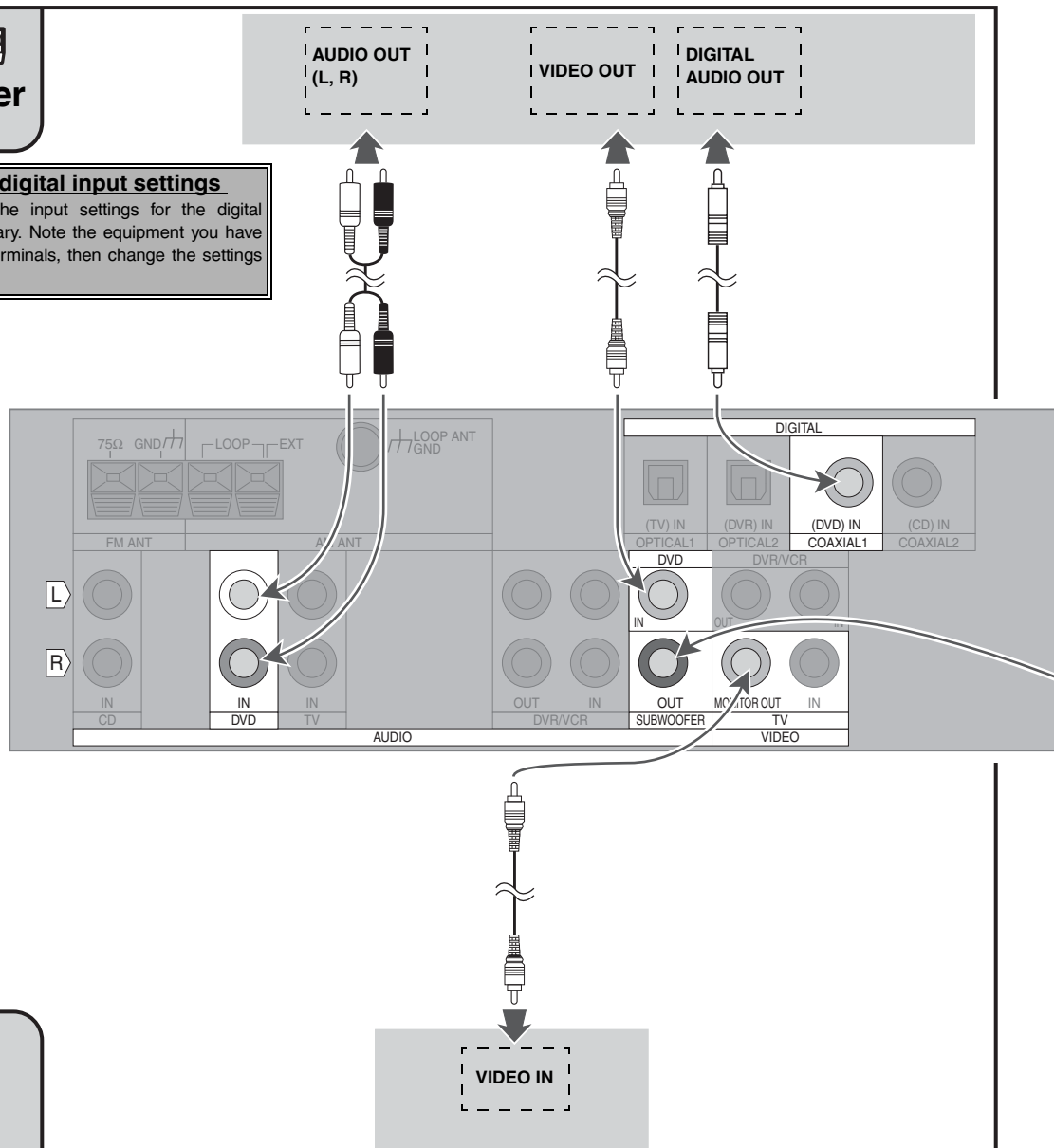


The front, center, and surround speakers should be placed at approximately the same distance from the seating area. The angles in the diagram are approximate.

DVD player

Changing the digital input settings

You can change the input settings for the digital terminals if necessary. Note the equipment you have connected to the terminals, then change the settings (⇒ page 8).



TV or monitor

Speakers/
AC power supply cord

Peripheral equipment and cables sold separately unless otherwise indicated.
To connect equipment, refer to the appropriate operating instructions.

Front speakers (A left B right)

Place on the left and right of the TV at seated ear height so that there is good coherency between the picture and sound.

Center speaker (C)

Place underneath or above the center of the TV. Aim the speaker at the seating area.

Surround speakers (D left E right)


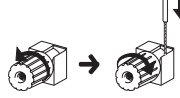
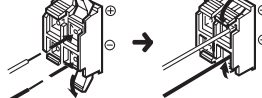
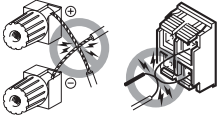
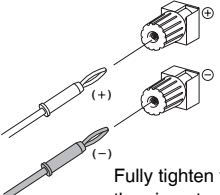
Place slightly behind the seating area, about one meter (3 feet) higher than ear level.

Subwoofer (F)

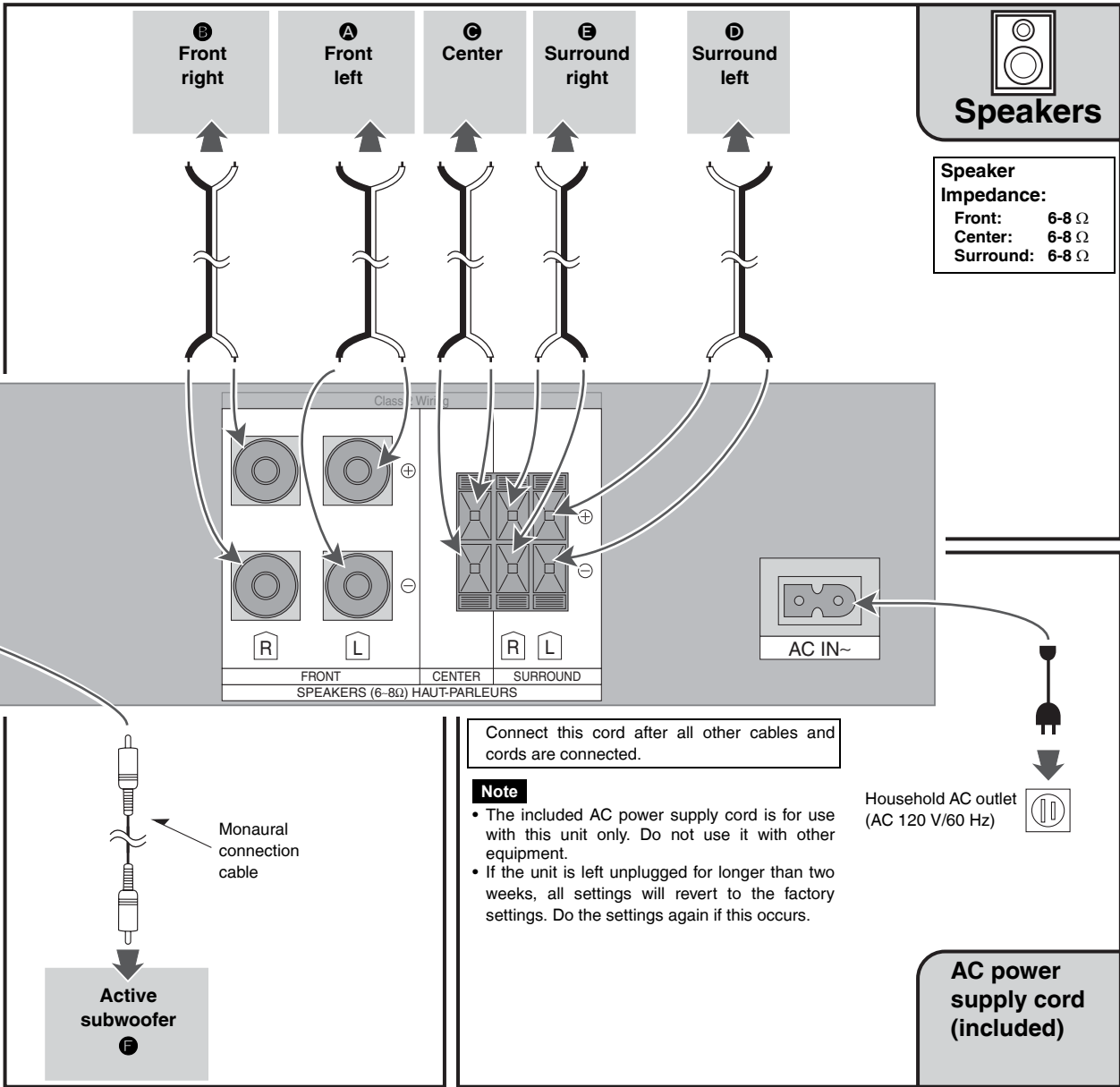
The subwoofer can be placed in any position as long as it is at a reasonable distance from the TV.

Note that some experimentation can yield the smoothest low frequency performance. Placement near a corner can increase the apparent output level, but can result in unnatural bass.

Connecting speakers

Cable	Speaker terminals
Twist the wire 	FRONT  Other terminals 
Note Do not short-circuit. 	If using 4-mm plugs  Fully tighten the terminal, then insert.

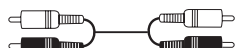
Step 1



Step 2 Other connections

Stereo connection cable

White (L)
Red (R)



Video connection cable



Optical fiber cable



Coaxial cable



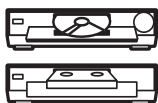
Turn off all components before making any connections.

Note

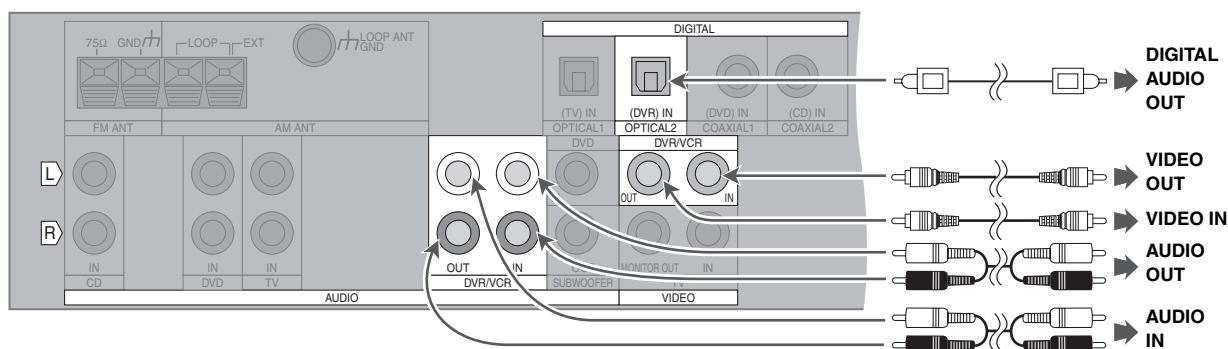
- Do not sharply bend the optical fiber cable.
- Use a digital connection to enjoy Dolby Digital or DTS (→ page 10).
- Use an analog connection to enjoy sources that cannot be decoded on this unit and to record a source (→ pages 10 and 18).

Changing the digital input settings

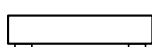
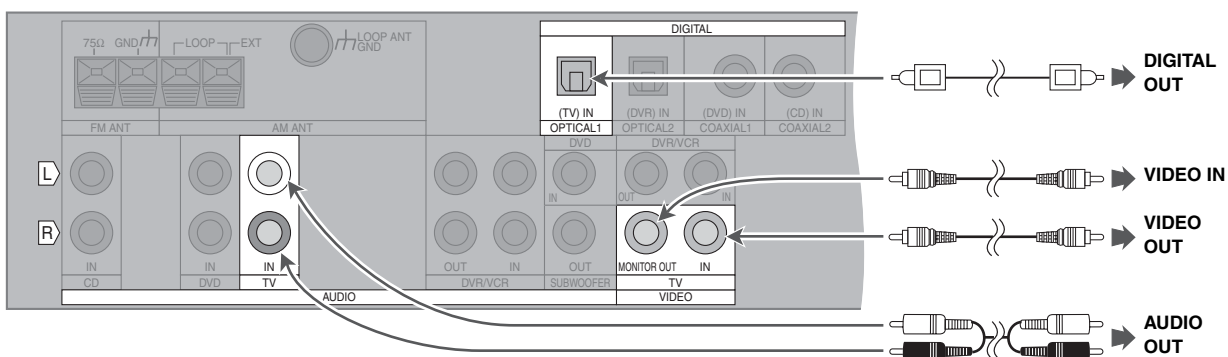
You can change the input settings for the digital terminals if necessary. Note the equipment you have connected to the terminals, then change the settings (→ page 8).



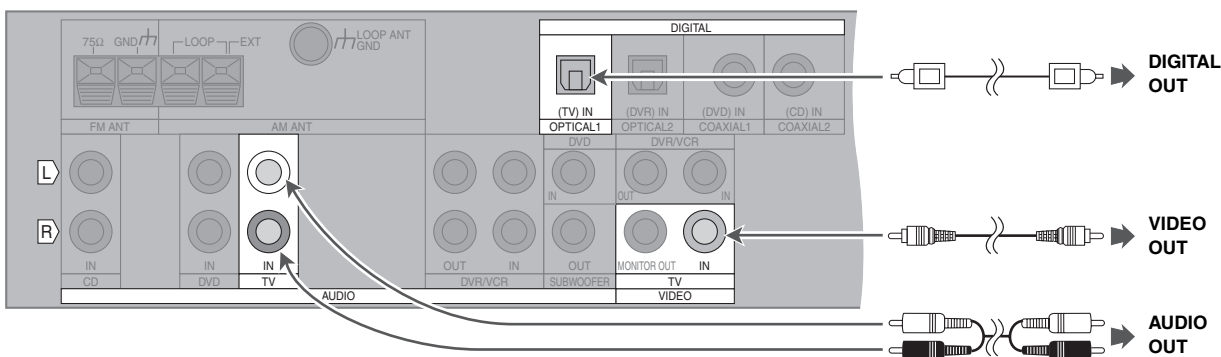
DVD recorder/VCR



TV or monitor

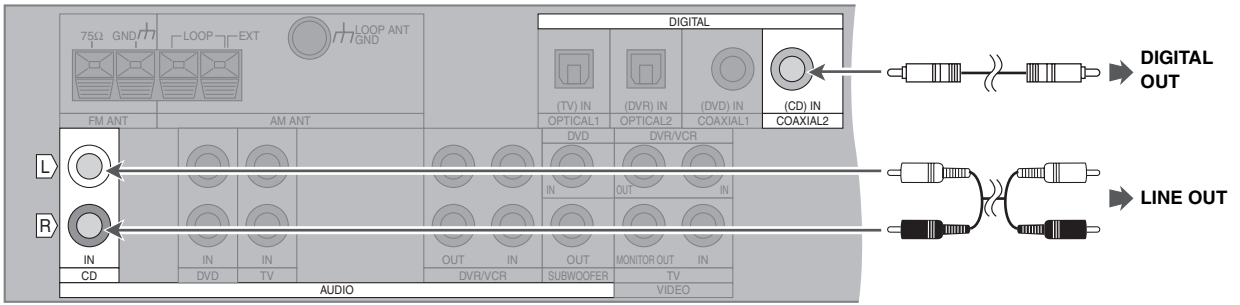


Cable box or satellite receiver, etc.





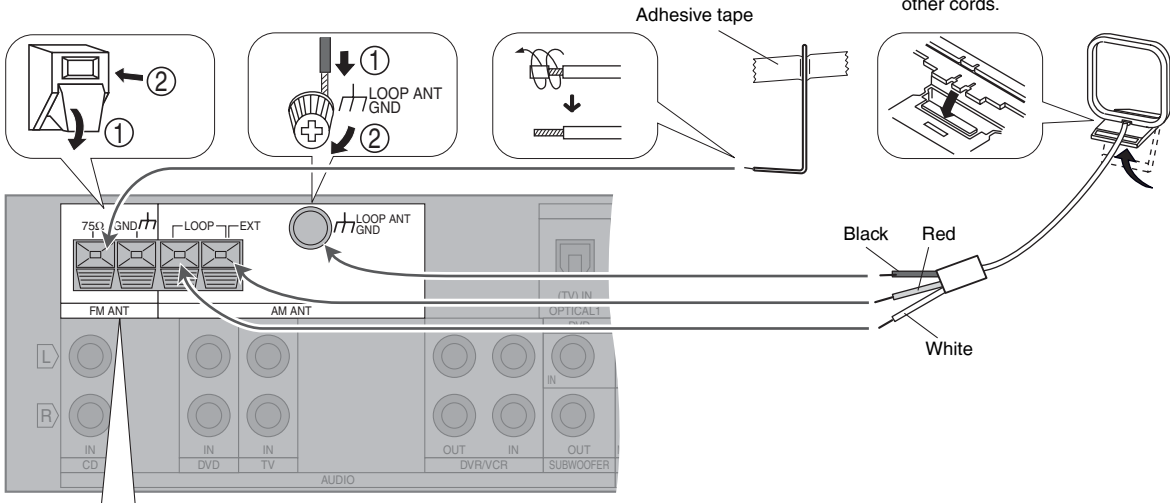
CD player



Antennas

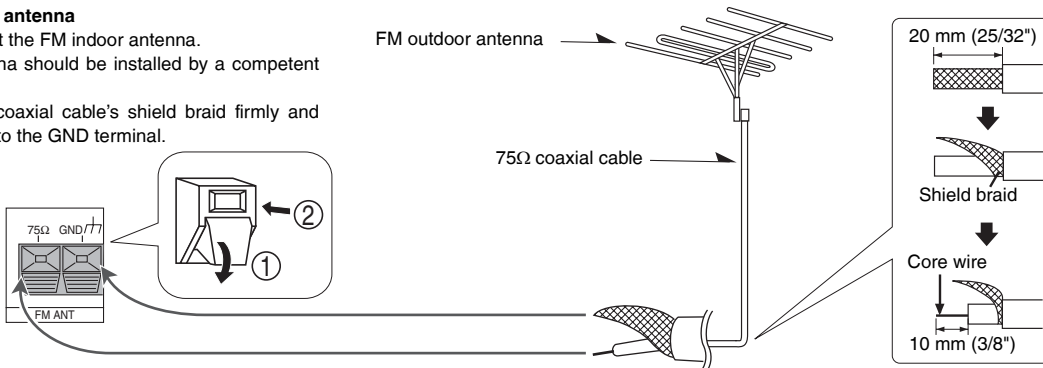
FM indoor antenna (included)
Fix the other end of the antenna where reception is best.

AM loop antenna (included)
Keep the antenna cord away from tape decks, DVD players, and other cords.



FM outdoor antenna

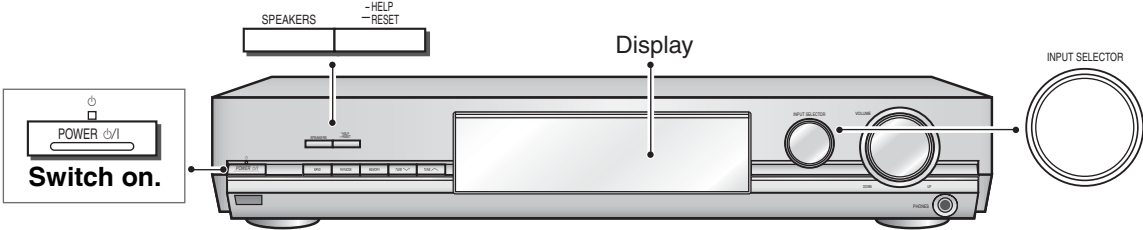
- Disconnect the FM indoor antenna.
- The antenna should be installed by a competent technician.
- Twist the coaxial cable's shield braid firmly and connect it to the GND terminal.



Step 3 Settings

Setup

Change the settings to suit your equipment to the environment in which you are using it. Before making any changes, read the descriptions of the settings, note the factory settings and ranges, and refer to the equipment's instructions.



1 Enter the setup mode.

SPEAKERS

-HELP
-RESET

Press and hold at the same time

SETUP

(Setup menus and factory settings ➡ page 21)

2 Change the settings.

SPEAKERS

-HELP
-RESET

Press and hold at the same time

COMPLETE

SPEAKERS

Set the size to suit your speakers.
LARGE: For speakers that can reproduce a full sound range, particularly the bass range below 100 Hz.
SMALL: For speakers that cannot adequately reproduce the bass range. This setting is sufficient for most speakers if you are using a subwoofer.
NONE: For speakers you haven't connected (center or surround).
For the subwoofer (SUB-WFR), select YES if you have connected one, or NO if you have not.

DISTANCE

Enter the distance of the front, center and surround speakers from the seating position.
By setting the distance between the speaker's position (except the subwoofer) and the listener's seating position, the sound delay time is automatically adjusted so that sound reaches the listener at the same time. You can select distances between 3 and 30 feet at one-foot intervals.

FILTER

Change the cut-off for bass output from the front speakers. If you set the front speakers to "SMALL", the filter is set to 100 Hz. Raise the cut-off if the bass from the front speakers is unsatisfactory so that this bass is output through the subwoofer. You can raise the cut-off from 100 Hz to either 150 Hz or 200 Hz.

D-INPUT (Digital input)

Change these settings to suit the connections you have made to the optical (OPT) and coaxial (COAX) digital input terminals, so that the correct source is selected when you turn [INPUT SELECTOR].

IN MODE (Input mode)

This unit automatically detects whether input is digital or analog, but you can fix the input mode.
AUTO: Automatically detects the input signal and plays
ANALOG: Fixes the input signal to analog and plays
DIGITAL: Fixes the input signal to digital and plays
PCM FIX: Fixes the input signal to PCM and plays

1. Select.

SPEAKERS

-HELP
-RESET

SPEAKERS

1. Select.

SPEAKERS

-HELP
-RESET

DISTANCE

1. Select.

SPEAKERS

-HELP
-RESET

FILTER

1. Select.

SPEAKERS

-HELP
-RESET

D-INPUT

1. Select.

SPEAKERS

-HELP
-RESET

IN MODE

Note regarding PCM FIX mode

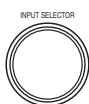
In rare cases, the unit may have trouble recognizing the digital signals on discs.

With the PCM signals on CDs, this may cause the beginning of a track to be cut off. Engage the PCM FIX mode if this occurs.

When PCM FIX mode is on, the unit cannot process other signals. This may cause noise to be output. Select another mode in this case.

The PCM FIX mode remains as set even if the power is turned off.

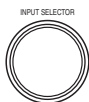
2. Select the speakers. 3. Change the settings.



FRONT
FRONT, CENTER,
SURROUND, SUB-WFR

SMALL
NONE, SMALL, LARGE
NO, YES

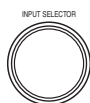
2. Select the speakers. 3. Change the settings.



FRONT
FRONT, CENTER,
SURROUND

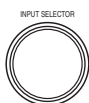
10 FEET
3 FEET 30 FEET

2. Change the settings.



100
100, 150, 200

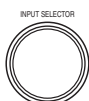
2. Select the input position.



TV
TV, DVR, DVD, CD

OPT 1
OPT 1, OPT 2,
COAX 1, COAX 2

2. Select the input position.

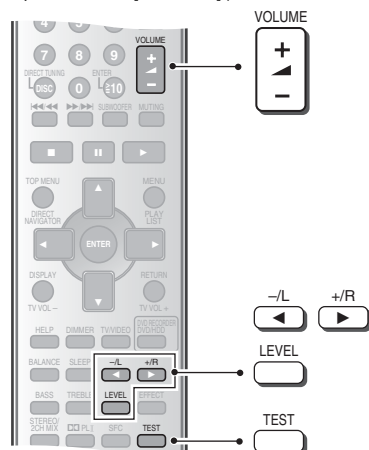


TV
TV, DVR, DVD, CD

AUTO
AUTO, ANALOG,
DIGITAL, PCM FIX

Adjusting speaker output level

Adjust the level of the other speakers based on the output of the front speakers. (Speakers set as "NONE" or "NO" are skipped. Adjust the volume of the front speakers with [VOLUME].)



C (center), RS (right surround) and LS (left surround) can be adjusted between -10 dB and $+10$ dB, with 0 being the level of the front speakers.

Adjust center and surround output to the same apparent level of the front speakers.

For SW (subwoofer), you can select "MIN" for minimum output, a level between 1 and 19, or "MAX" for maximum output. Adjust subwoofer output so it is balanced with the front speakers. Subwoofer output is easily influenced by the source. You can also change its level while playing something for better effect (➡ page 16).

Preparation: Press [SPEAKERS] to turn on SPEAKERS.
(On the main unit)

1 Output the signal.



TEST L
Two seconds each.
L → C → R
SW → LS → RS

2 Adjust the main volume.



VOL -50dB
--dB (minimum) 0 dB (maximum)

3 Select the speaker channel.



C 0dB
C, RS, LS, SW

4 Adjust the level.

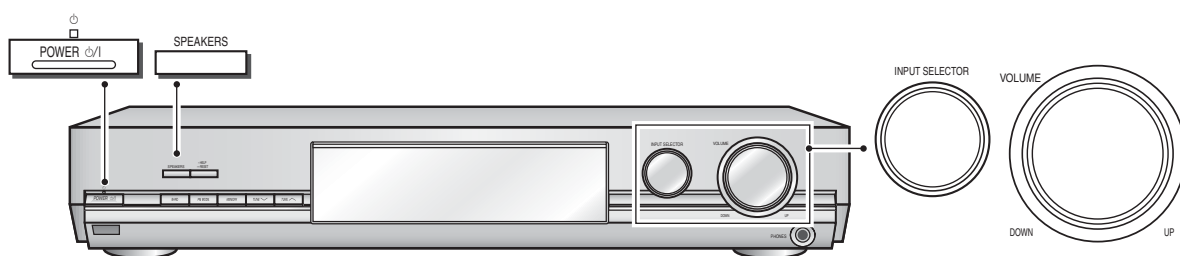


C +4dB
-10 dB +10 dB
MIN, 1 19, MAX

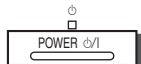
5 Stop the test signal.



Step 4 Basic operations



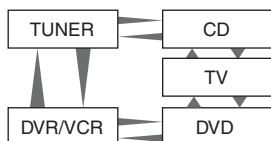
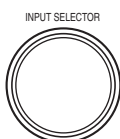
1 Switch on.



2 Turn SPEAKERS on.



3 Select input.

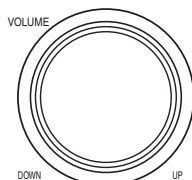


4 Start play of the source.

The unit sets the sound mode (stereo or multi-channel) to suit the input signal.

- Select the desired sound mode (→ right)

5 Adjust the volume.



When you finish listening

Be sure to reduce the volume and press [POWER] to switch the unit to standby.

Notes on digital input

This unit can decode the following signals:

- Dolby Digital
- DTS
- PCM, including PCM with sampling frequencies of 192, 176.4 (COAXIAL), 96 or 88.2 kHz

It cannot decode:

- Other digital signals, such as MPEG
- Dolby Digital RF signals from a laser disc player

Sound modes

Adding surround effects

Using Dolby Pro Logic II

Dolby Pro Logic II processor works not only on sources recorded with Dolby Surround, but also on any stereo source.

The following modes are available when using Dolby Pro Logic II.



MOVIE

Use this mode when playing movies, especially videotapes, recorded in Dolby Surround.

MUSIC

Adds surround effects to stereo sources.

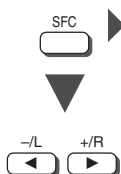
PANORAMA

Sound is spread out more so you feel like you are surrounded by music.

- To cancel: Press [STEREO/2CH MIX, OFF].

Using the Sound Field Control (SFC)

Enjoy an enhanced sound experience with greater presence and spread by using these SFC modes with Dolby Digital, DTS, PCM or analog stereo sources. Choose from the following modes.



MUSIC

LIVE

Imparts the reflection and spread of a large concert hall.

POP/ROCK

Best suited for dynamic sound such as pop and rock music.

VOCAL

Best suited to enhance vocals.

JAZZ

Recreates natural sound ambience and direction.

DANCE

Enjoy a dance hall like audio effect.

PARTY

This mode uses the front and surround speakers so that sound is in stereo regardless of the direction you are facing.

AV/MOVIE

DRAMA

Best suited for dialogues in drama movies.

ACTION

Best suited for action movies with impact.

SPORTS

Enjoy a feeling like being at a live sporting event.

MUSICAL

Enjoy a feeling like being at a live musical performance.

GAME

Enjoy games with greater audio impact.

MONO

Best suited for older monaural audio movies.

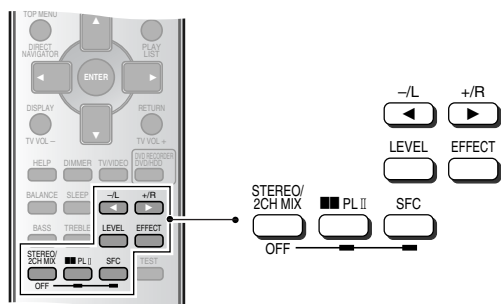
- To cancel: Press [STEREO/2CH MIX, OFF].

Listening to multi-channel sources in stereo (2CH MIX mode)

When multi-channel sources are played in this mode, the sounds intended for the other speaker channels are played through the front speakers.



- To cancel: Press [STEREO/2CH MIX, OFF].



You can adjust the effect of MUSIC and PANORAMA with the center width and dimension controls.

Center Width Control – C-WDTH

This adjustment helps you realize a more natural sound image when listening to music. Move sound out into the front speakers to improve the overall front image, or add sound to the center speaker to fix the center image.

You can choose a level between 0 (the center speaker is dominant) and 7 (center sound is spread out). The default level is 3.



Dimension Control – DIMEN

You can make up for differences in the output level of the front and surround speakers. You can choose a level between -3 and +3 - Increase the level to move sound to the front speakers, decrease to move it to the surround speakers. The default is level 0.



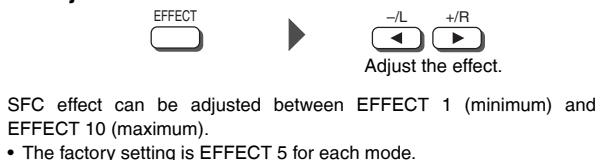
You can adjust the sound field by adjusting the level of the speakers and effect. These adjustments can be made for each SFC mode.

To adjust the speaker level



- Speakers set as "NONE" or "NO" are skipped.

To adjust SFC effect



Notes on sound modes

Dolby Pro Logic II and SFC modes remain in effect until you change them.

- To cancel
Press [STEREO/2CH MIX, OFF].

The 2CH MIX mode remains in effect until you change input mode or turn off the unit.

- To return to surround sound
Press [STEREO/2CH MIX, OFF].

When input is PCM with sampling frequencies of 192, 176.4 (COAXIAL1), 96, or 88.2 kHz:

- You cannot add surround effects with Dolby Pro Logic II or SFC.

When neither the center or surround speakers are selected in the SPEAKERS settings:

- You cannot use Dolby Pro Logic II or SFC.

Control guide

Main unit

Standby indicator [⏻]

When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.

Standby/on switch

[POWER ⏻/I]

Press to switch the unit from on to standby mode or vice versa.

In standby mode, the unit is still consuming a small amount of power.

[SPEAKERS]

For selecting speakers on or off.

Turning the speakers off automatically engages the STEREO/2CH MIX mode (when listening through headphones, for example).

[-HELP, -RESET]

Press if an error message appears. A message offering a possible solution scrolls across the display.

To reinitiate the unit's settings, press and hold until "RESET" appears.

[DIGITAL, PL II, DTS]

Lights to indicate the source's input signal and decoding format used.

DIGITAL: Dolby Digital sources

PL II: Dolby Pro Logic II decoder is being used

DTS: DTS sources

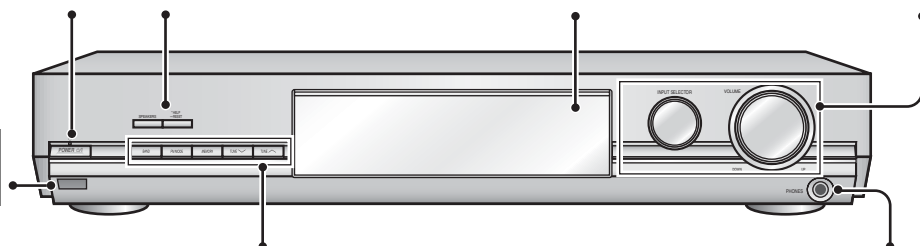
[INPUT SELECTOR]

For selecting input.

[VOLUME]

Volume control.

Remote control signal sensor



[BAND]

For switching between FM and AM.

[FM MODE]

If reception is poor in FM, switch to the monaural mode by pressing until "MONO" appears.

[MEMORY]

For presetting radio stations.

[TUNE ∇, ▲]

For tuning the radio and selecting preset stations.

Press and hold until the frequency starts scrolling to start automatic tuning. Tuning stops when a station is found.

[PHONES]

Headphone jack
Plug type: 6.3 mm (1/4") stereo

- Avoid listening for prolonged periods of time to prevent hearing damage.
- Turn the speakers off when using the headphones.

Display

- When you turn the dimmer to "ON", the following indicators change to dim.

[SPEAKERS]

Speaker indicator

Lights when the speakers are on.

[TUNED, ST, M, MONO]

Radio indicators

TUNED: A station is tuned.

ST: A stereo FM broadcast is tuned.

M: Flashes or lights during presetting.

MONO: Lights when using the monaural mode.

[SLEEP]

Sleep timer indicator.

[SFC, 2CH MIX]

SFC: Lights when using an SFC mode.

2CH MIX: Lights when playing a multi-channel source in 2CH MIX mode.

[-DIGITAL INPUT-, L, C, R, S, LS, RS, LFE]

Program format indicators

Show the channels contained in the digital input signal. They do not light when input is analog.

L: Front left channel

C: Center channel

R: Front right channel

S: If the surround channel is monaural.

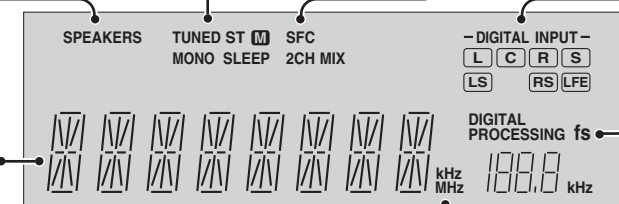
LS: Surround left channel

RS: Surround right channel

LFE (Low Frequency Effects): Deep-bass effect.

General display

Shows the input mode, radio frequency, and other general information.



[DIGITAL PROCESSING fs]

Displays the frequency the unit is processing.

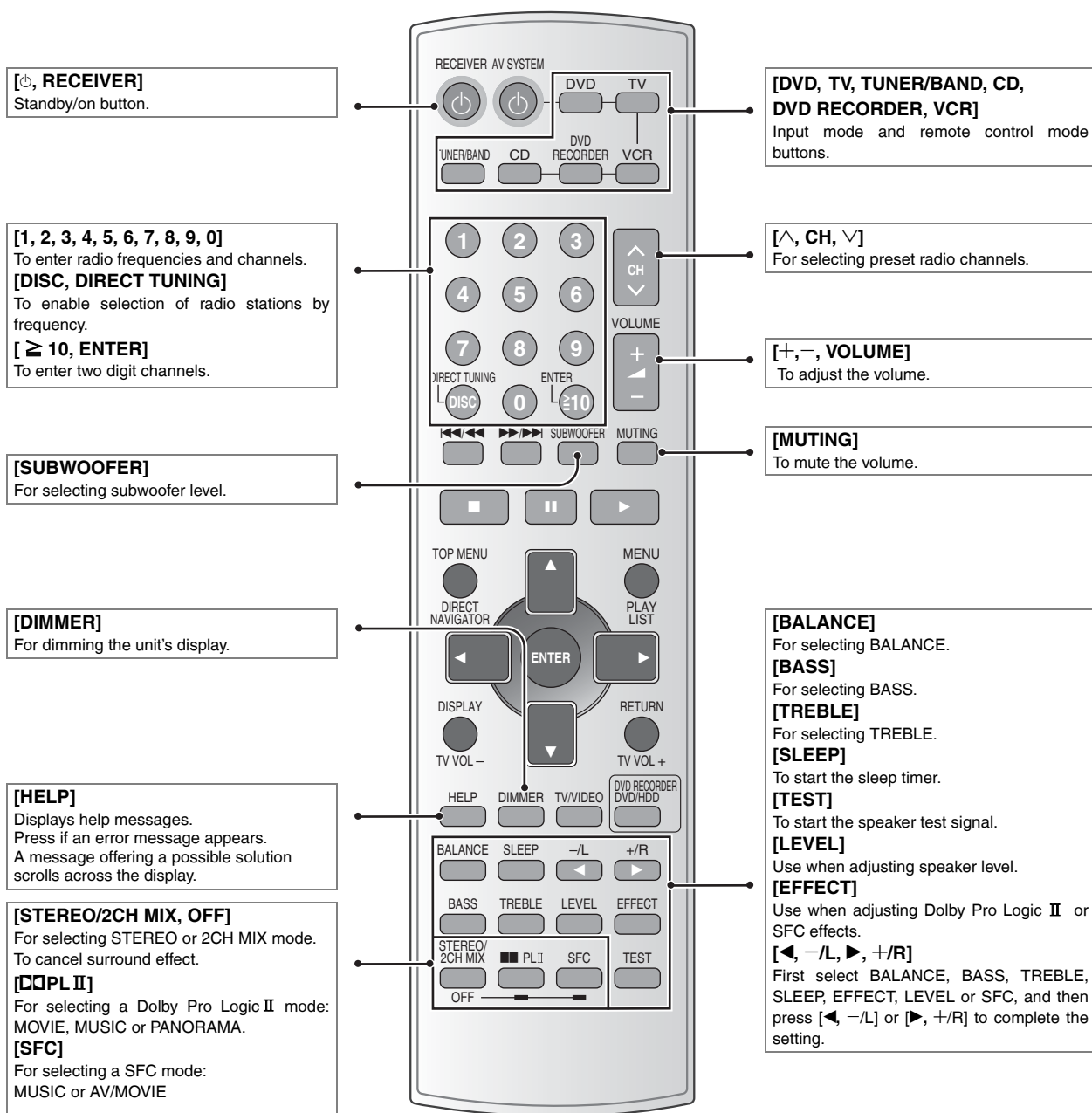
[kHz, MHz]

Frequency unit indicators
kHz: AM, or PCM sampling frequency
MHz: FM

Remote control

Buttons not explained on this page are used only to operate other equipment.

Refer to the separate booklet, "Remote Control Operation Guide", for remote control operation details.



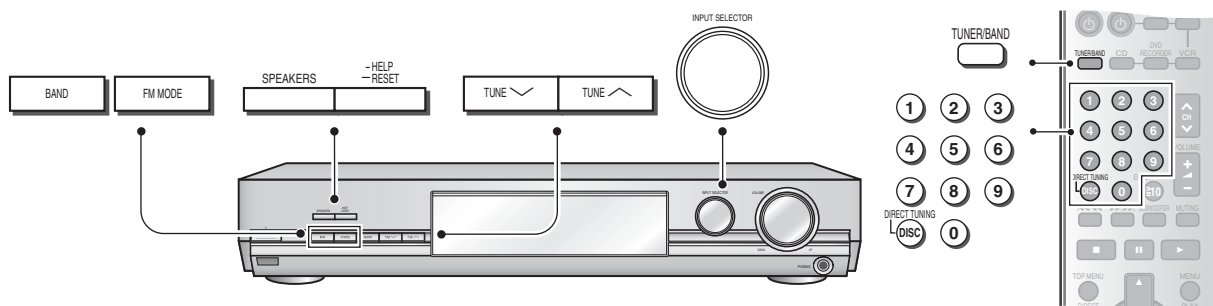
For your reference

- **When playing video sources connected to DVR/VCR**
The picture remains on the screen even if you select CD or TUNER.

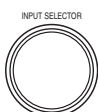
- **When muting is on**
Muting is also canceled when the unit is turned off.

The radio

Manual tuning



1 Select "TUNER".



2 Select "FM" or "AM".



3 Tune to the station.



Tuning intervals: FM-0.2 MHz, AM-10 kHz

Automatic tuning

Hold down [TUNE V or ^] until the frequency begins to scroll. Tuning stops when a station is found. (Tuning may stop if there is interference.)

Direct tuning



e.g. 107.9 MHz, Press [1] → [0] → [7] → [9]

Tuning intervals: FM-0.1 MHz, AM-10 kHz

- If you do not press a button while the cursor is flashing, the display returns to the frequency being received.
- If the frequency has not been input correctly, "ERROR" will be displayed.

Improving reception

FM mode

You can improve FM reception by switching reception to monaural.

When FM is selected



"MONO" lights.

• To cancel

Press [FM MODE] again.

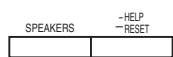
Beat proof mode

When there is a lot of noise interference with the AM broadcast, try switching to this mode. This may change the volume, but noise will also reduce.

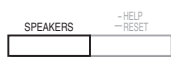
1. Enter the setup mode. 2. Select "B PROOF".

3. Select "MODE A" or "MODE B".

4. Exit the setup mode.



Press and hold at the same time



Press and hold at the same time

For your reference

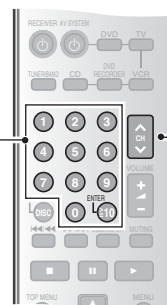
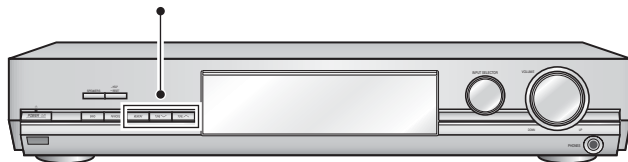
• Improving reception

DVD players can interfere with radio reception. Turn the DVD player off or move it further away from the antennas if this occurs.

• Beat proof mode

Changing these settings also changes the A/D attenuator settings, which are linked. (➡ page 17)

Preset tuning



- 1 **Presetting stations.**
(→ below, "Automatic presetting" or "Manual presetting")

- 2 **Select the preset channels.**



or



When using the numbered buttons

To select a two digit number

e.g. 21: [≥ 10, ENTER] → [2] → [1]

■ Presetting stations

Automatic presetting

Preparation:

First, set the channel reception to FM 87.9 MHz or AM 530 kHz.

Preset channels that are automatically assigned by this unit are:

FM: 1 to 30, AM: 21 to 30

(FM stations are replaced if any were preset in these channels.)

Manual presetting

Preparation:

Set the station signal you want to set as a preset.

Preset the stations one at a time.

FM stations can also be preset in the MONO mode.

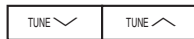
Start automatic presetting.



Press and hold

- During automatic presetting, the memory indicator (M) flashes and the frequency scrolls. The memory indicator and channel numbers are displayed for a second when a station is preset.
- The last station to be preset is displayed when presetting finishes.

1. Enter preset mode.
2. Select a channel.
3. Store to memory.

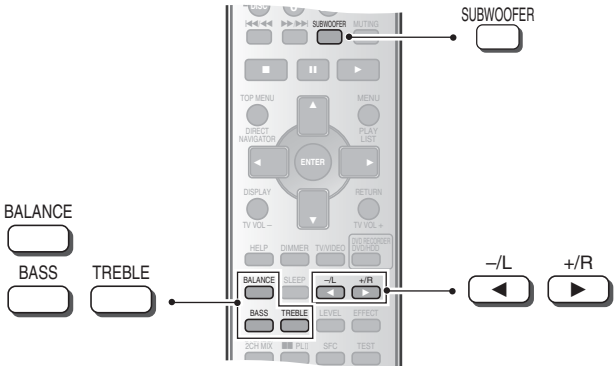


CH 1 — CH 30

For your reference

Even if the AC power supply cord is disconnected from the household AC outlet, the stations remain in memory for approximately two weeks.

Audio settings



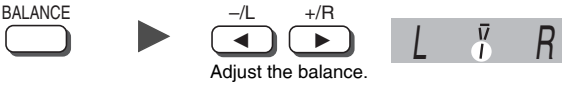
Subwoofer level

You can adjust the volume of the subwoofer while listening to a source.
Select SW --- to stop output.
The factory setting is SW 10.
• Sound can be distorted if you raise the volume while the subwoofer level is high. Reduce the subwoofer level if this occurs.



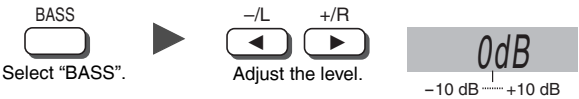
Balance

You can adjust the balance of the front speakers.



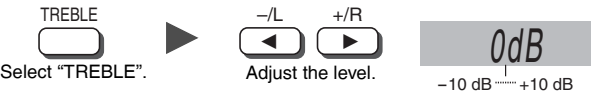
Bass

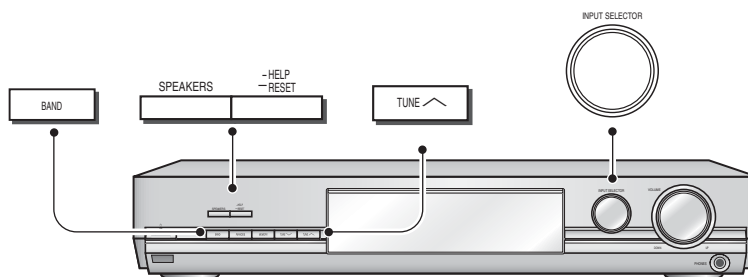
You can adjust the level of the bass.
• The STEREO mode must be on and input must be either analog or PCM signals.



Treble

You can adjust the level of the treble.
• The STEREO mode must be on and input must be either analog or PCM signals.





A/D attenuator

Turn the A/D attenuator on if "OVERFLOW" lights frequently when using 2-channel analog input.

The factory setting is OFF.

1. Enter the setup mode.



Press and hold at the same time

SETUP

2. Select.



A/D ATT

3. Select.



OFF

OFF ↔ ON

4. Exit the setup mode.



Press and hold at the same time

COMPLETE

Dynamic range compression

Change this setting to listen to software recorded with Dolby Digital at low volume (such as late at night) maintaining audio clarity. It reduces the peak level in loud scenes without affecting the sound field.

OFF:

The software is played with the original dynamic range (factory setting).

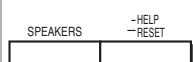
STANDARD:

The level recommended by the producer of the software for household viewing.

MAX:

The maximum allowable compression (recommended for night viewing).

1. Enter the setup mode.



Press and hold at the same time

SETUP

2. Select.



DR COMP

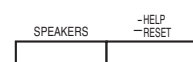
3. Select.



OFF

OFF, STANDARD, MAX

4. Exit the setup mode.



Press and hold at the same time

COMPLETE

Dual program

When the input signal is Dolby Digital and "DUAL" appears in the display, the audio to be output is set.

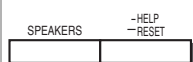
MAIN: Main audio output

SAP: Sub channel audio output

MAIN+SAP: Main and sub channel audio output

The factory setting is MAIN.

1. Enter the setup mode.



Press and hold at the same time

SETUP

2. Select.



DUAL PRG

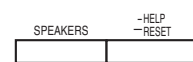
3. Select.



MAIN

MAIN, SAP, MAIN+SAP

4. Exit the setup mode.



Press and hold at the same time

COMPLETE

DTS FIX mode

In rare cases, the unit may have trouble recognizing the digital signals on discs.

With DTS, the signals may not be recognized at all. Engage the DTS FIX mode if this occurs.

When DTS FIX mode is on, the unit cannot process other signals. This may cause noise to be output. Turn the setting off in this case.

- When you turn the unit to standby, the DTS FIX mode is canceled.

While the input source is selected

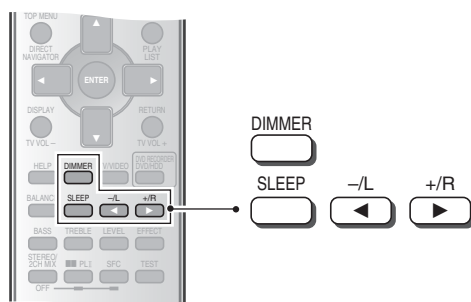
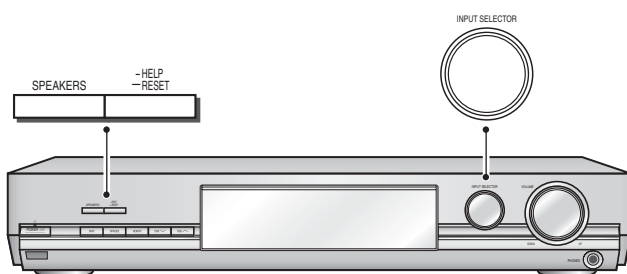


Press and hold at the same time for 2 seconds.

DTS FIX

- To cancel, perform the same operation again. "AUTO" is displayed.

Other functions

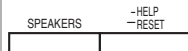


Dimmer

Dim the display for better viewing in a darkened room.
The factory setting is OFF.

On the main unit

1. Enter the setup mode.



Press and hold at the same time

SETUP

On the remote control



2. Select.



DIMMER

3. Select "ON".

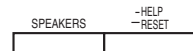


OFF

OFF ↔ ON

• To cancel, select "OFF".

4. Exit the setup mode.



Press and hold at the same time

COMPLETE

Sleep timer

The sleep timer can turn the unit off after a set time.
It does not control any other components.



SLEEP 30

SLEEP ↔ OFF

• To cancel, select "OFF".

Within 5 seconds



SLEEP 30

30, 60, 90, 120 (in minutes)

To check the setting

Press [SLEEP] once.
• The time remaining appears.

To change a setting

Repeat the procedure from the beginning.

The RESET function

The operation settings for the unit will be initialized to the settings made at the time of shipment.
However, any preset radio stations will not be erased.

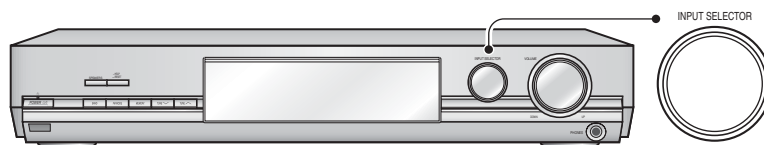
While the unit is on.



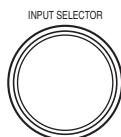
RESET

Press and hold
"RESET" appears on the display.

Making a recording



1 Select the source to be recorded.



2 Begin recording.
Follow your recording unit's operating instructions.

3 Start the source to be recorded.
Follow your equipment's operating instructions.

You can record to a DVD recorder/VCR connected to DVR/VCR OUT.
See the recording unit's operating instructions for details on how to prepare it for recording.

Note

When recording with a DVD recorder/VCR, you can record any source except DVR/VCR.
You cannot record a source connected through a digital terminal.
When recording from a TV, DVD or CD ensure the source is connected through the corresponding analogue terminals and "ANALOG" input is selected.

Specifications (IHF'78)

■ AMPLIFIER SECTION

Rated minimum sine wave RMS power output	
20 Hz-20 kHz both channels driven	
0.09 % total harmonic distortion	100 W per channel (6 Ω)
1 kHz continuous power output both channels driven	
0.09 % total harmonic distortion	105 W per channel (6 Ω)
Total harmonic distortion	
rated power at 20 Hz-20 kHz	0.09 % (6 Ω)
Power bandwidth	
both channels driven, -3 dB	4 Hz-88 kHz (6 Ω, 0.9 %)
Power output each channel driven	
0.9 % total harmonic distortion at 1kHz	
Front (L/R)	100 W (6 Ω)
Center	100 W (6 Ω)
Surround (L/R)	100 W (6 Ω)
Load impedance	
Front (L/R)	6-8 Ω
Center	6-8 Ω
Surround (L/R)	6-8 Ω
Frequency response	
CD, TV, DVD, DVR/VCR	4 Hz-88 kHz, ±3 dB
Input sensitivity	
CD, TV, DVD, DVR/VCR	27 mV (200 mV, IHF '66)
Input impedance	
CD, TV, DVD, DVR/VCR	22 kΩ
S/N (IHF A)	
CD, TV, DVD, DVR/VCR (Digital Input)	85 dB (103 dB, IHF '66)
Tone controls	
BASS	50 Hz, +10 to -10 dB
TREBLE	20 kHz, +10 to -10 dB
Subwoofer frequency response (-6 dB)	
	7 Hz-200 Hz

Digital input	(OPTICAL)	2
	(COAXIAL)	2

■ FM TUNER SECTION

Frequency range		87.9-107.9 MHz
Sensitivity		11.2 dBf (2 μV, IHF '58)
50 dB quieting sensitivity		
MONO		18.3 dBf (4.5 μV, IHF '58)
STEREO		38.3 dBf (45 μV, IHF '58)
Total harmonic distortion		
MONO		0.2 %
STEREO		0.3 %
S/N		
MONO		73 dB
STEREO		67 dB

Frequency response	20 Hz-15 kHz, +1 dB, -2 dB
Alternate channel selectivity	65 dB
Capture ratio	1.5 dB
Image rejection at 98 MHz	40 dB
Spurious response rejection at 98 MHz	75 dB
AM suppression	50 dB
Stereo separation	
1 kHz	40 dB
10 kHz	30 dB
Antenna terminal	75 Ω (unbalanced)

■ AM TUNER SECTION

Frequency range	530-1710 kHz
Sensitivity	20 μV, 330 μV/m
Selectivity	55 dB
IF rejection at 1000 kHz	50 dB

■ VIDEO SECTION

Output voltage at 1 V input (unbalanced)	1±0.1 Vp-p
Maximum input voltage	1.5 Vp-p
Input/output impedance	75 Ω

■ GENERAL

Power supply	AC 120 V, 60 Hz
Power consumption	100 W
Dimensions (W x H x D)	
	430 x 83 x 376 mm
	(16-15/16" x 3-9/32" x 14-13/16")
Mass	
	4.0 kg (8.8 lb.)

■ DIN POWER

1 kHz, T. H. D 1 %	2 x 100 W (6 Ω)
--------------------	-----------------

Power consumption in standby mode:	1 W
------------------------------------	-----

Notes:

1. Specifications are subject to change without notice. Mass and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

Product Service

- 1. Damage requiring service** – The unit should be serviced by qualified service personnel if:
 - (a) The AC power supply cord or the plug has been damaged; or
 - (b) Objects or liquids have gotten into the unit; or
 - (c) The unit has been exposed to rain; or
 - (d) The unit does not operate normally or exhibits a marked change in performance; or
 - (e) The unit has been dropped or the cabinet damaged.
- 2. Servicing** – Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
- 3. Replacement parts** – When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.
- 4. Safety check** – After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

Product information

For product information or assistance with product operation:
Contact Panasonic Canada Inc. Customer Care Centre at 905-624-5505,
or visit the website (www.panasonic.ca), or an authorized Servicentre
closest to you.

Maintenance

To clean this unit, wipe with a soft, dry cloth.

- Never use alcohol, paint thinner or benzine to clean this unit.
- Before using chemically treated cloth, read the instructions that came with the cloth carefully.

Troubleshooting guide

Before requesting service, make the below checks. If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, **contact Panasonic Canada Inc. Customer Care Centre at 905-624-5505, or visit the website (www.panasonic.ca), or an authorized Servicentre closest to you.**

Common problems

Pages

No power.	<ul style="list-style-type: none"> Ensure the AC power supply cord is connected. 	5
No sound.	<ul style="list-style-type: none"> Turn the volume up. Check connections to speakers and other equipment. Select the correct source. Turn on the speakers. Change the D-INPUT setting to suit the type of connection you have made. Check that the digital signals can be decoded by this unit. Turn PCM FIX or DTS FIX off. 	10 4-7 10 10 8 10 8, 17
Sound stops. "F 76" or "OVERLOAD" appears on the display for about a second, and the unit turns off.	<ul style="list-style-type: none"> Determine and correct the cause, then turn the unit on. Causes include: <ul style="list-style-type: none"> Shorting (bare wires touching) of positive and negative speaker wires. Using speakers with an impedance lower than that rated for this unit. Straining of the speakers through excessive volume or power. Using the unit in a hot environment without proper ventilation. Consult your dealer if the problem occurs again after switching the unit on. 	5 5 — —
"F 70" appears on the display.	<ul style="list-style-type: none"> Turn the unit off, disconnect the AC power supply cord, and consult your dealer. 	—

Sound modes

Pages

Sound is not heard from the center, surround, or subwoofer speakers.	<ul style="list-style-type: none"> Ensure the SPEAKERS settings for your speakers are correct. Turn 2CH MIX off. The source may be stereo. Change the sound mode. 	8 10 10
Cannot use Dolby Pro Logic II or SFC.	<ul style="list-style-type: none"> You cannot use Dolby Pro Logic II or SFC when input is PCM with sampling frequencies of 192, 176.4 (COAXIAL1), 96 or 88.2 kHz. 	11
There is no DTS audio output. There is Audio output, but the DTS decoder indicator is not lit.	<ul style="list-style-type: none"> Check the DVD player's digital output settings. 	—

Radio

Pages

The radio cannot be tuned in or there is a lot of noise and interference.	<ul style="list-style-type: none"> Connect the appropriate antenna. (You may need an outdoor antenna or one with more elements.) Adjust the position of the FM or AM antenna. Reduce the treble. Turn off nearby televisions, video decks, DVD players, and satellite receivers. Separate the antenna from other cables, leads, and appliances. 	7 7 16 — —
---	--	------------------------

Setup menus and factory settings (Reference pages are shown as black circled number ⑧)

Main menu	Sub menu (factory settings)	
SPEAKERS	FRONT	SMALL
	CENTER	
	SURROUND	
	SUB-WFR	YES
DISTANCE	FRONT	3.0 FEET
	CENTER	
	SURROUND	1.5 FEET
FILTER	100	
D-INPUT	TV	OPT 1
	DVR	OPT 2
	DVD	COAX 1
	CD	COAX 2
IN MODE	TV	AUTO
	DVR	
	DVD	
	CD	

Main menu	Sub menu (factory settings)	
A/D ATT	OFF	⑩
DR COMP	OFF	
B PROOF	MODE A	⑪
DIMMER	OFF	⑫
DUAL PRG	MAIN	⑬

Panasonic Canada Inc.

5770 Ambler Drive, Mississauga, Ontario L4W 2T3

PANASONIC/TECHNICS PRODUCT—LIMITED WARRANTY

Panasonic Canada Inc. warrants this product to be free from defects in material and workmanship and agrees to remedy any such defect, or at its option, replace the product for a period as stated below from the date of original purchase.

Technics Audio Product	Two (2) years, parts and labour
Panasonic Portable/Clock Radio (without Tape, CD, MD)	Two (2) years, parts and labour
Panasonic Audio/SD Audio Product	One (1) year, parts and labour
Panasonic DVD Product	One (1) year, parts and labour
Accessories including rechargeable batteries	Ninety (90) days

LIMITATIONS AND EXCLUSIONS

This warranty does not apply to products purchased outside Canada or to any product which has been improperly installed, subjected to usage for which the product was not designed, misused or abused, damaged during shipping, or which has been altered or repaired in any way that affects the reliability or detracts from the performance, nor does it cover any product which is used commercially. Dry cell batteries are also excluded from coverage under this warranty.

This warranty is extended to the original end user purchaser only. A purchase receipt or other proof of date of original purchase is required before warranty service is performed.

THIS EXPRESS, LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, EXCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT WILL PANASONIC CANADA INC. BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES.

In certain instances, some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, or the exclusion of implied warranties, so the above limitations and exclusions may not be applicable.

WARRANTY SERVICE

For product operation and information assistance, please contact your Dealer or our Customer Care Centre at: Telephone #: (905) 624-5505 Fax #: (905) 238-2360 Web: www.panasonic.ca

For product repairs, please contact one of the following:

- Your Dealer who will inform you of an authorized Servicentre nearest you.
- Our Customer Care Centre at (905) 624-5505 or www.panasonic.ca
- A Panasonic Factory Servicentre listed below:

<u>Richmond, British Columbia</u>	<u>Calgary, Alberta</u>	<u>Mississauga, Ontario</u>	<u>Lachine, Québec</u>
Panasonic Canada Inc. 12111 Riverside Way Richmond, BC V6W 1K8 Tel: (604) 278-4211 Fax: (604) 278-5627	Panasonic Canada Inc. 6835-8 th St. N. E. Calgary, AB T2E 7H7 Tel: (403) 295-3955 Fax: (403) 274-5493	Panasonic Canada Inc. 5770 Ambler Dr. Mississauga, ON L4W 2T3 Tel: (905) 624-8447 Fax: (905) 238-2418	Panasonic Canada Inc. 3075, rue Louis A. Amos Lachine, QC H8T 1C4 Tel: (514) 633-8684 Fax: (514) 633-8020

IF YOU SHIP THE PRODUCT TO A SERVICENTRE

Carefully pack and send prepaid, adequately insured and preferably in the original carton.
Include details of the defect claimed, and proof of date of original purchase.

Panasonic Canada Inc.

5770 Ambler Drive, Mississauga, Ontario L4W 2T3

www.panasonic.ca